

REMARKS

This is in response to the Office Action dated June 6, 2005. Claims 20-23 are now pending.

Claim 20 stands rejected under 35 U.S.C. Section 102(b) as being allegedly anticipated by Yasumoto (US 4,612,083). This Section 102(b) rejection is respectfully traversed for at least the following reasons.

Claim 20 as amended requires that “the first conductive material that fills in the contact hole in the first insulating layer and the second conductive material that fills in the contact hole in the second insulating layer are solid-state-bonded to each other so as to directly contact one another in a bonded state with no intermediate element therebetween, and wherein no additional material is provided between the first conductive material that fills in the contact hole in the first insulating film and the second conductive material that fills in the contact hole in the second insulating film; and wherein a gap or clearance is defined between the first and second insulating layers adjacent an area where the conductive materials are solid-state-bonded to one another, and wherein no material is provided in the gap or clearance between the first and second insulating layers.” It can be seen that claim 20 has been amended to require that both: (a) a gap or clearance is defined between the first and second insulating layers adjacent an area where the conductive materials are solid state bonded to one another (e.g., see clearance/gap 30 in fig. 4 of the instant application); and (b) no additional material is provided between the first and second conductive materials. For example, see Fig. 4 of the instant application which illustrates that the conductive material 5 in contact hole 13 of insulating layer 7 is solid-state-bonded to and directly contacts the conductive material 25 provided in through hole 28 of the other insulating layer 27. Moreover, Figs. 3-4 of the instant application illustrate that the

conductive materials 5 and 25 each protrude above their corresponding insulating layers 7 and 27, respectively. Fig. 4 further illustrates, for example, a gap or clearance 30 that is defined between the first and second insulating layers 7, 27 adjacent an area where the conductive materials 5, 25 are solid state bonded to one another, and shows that no additional material is provided between the first and second conductive materials 5, 25.

Yasumoto fails to disclose or suggest the aforesaid underlined, bolded and quoted features of claim 20. Fig. 1(f) of Yasumoto does not disclose or suggest a gap or clearance defined between the alleged first and second insulating layers 16 and 16' adjacent an area where the conductive materials are solid state bonded to one another. Instead, the requirement of resin 22, 22' in Yasumoto prevents such a gap or clearance from occurring, thereby teaching directly away from the invention of claim 20.

Moreover, it is respectfully submitted that claim 20 would not have been obvious over Kawai. While Kawai discloses a clearance, Kawai requires additional materials 2 and 5 in order to form the clearance. In contrast, amended claim 20 requires that there be "no additional material" between the first and second conductive materials that "fill" the contact holes. Thus, the combination of Yasumoto and Kawai would require additional materials 2, 5, and thus would not meet the invention of amended claim 20.

In view of the above, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

SUGA

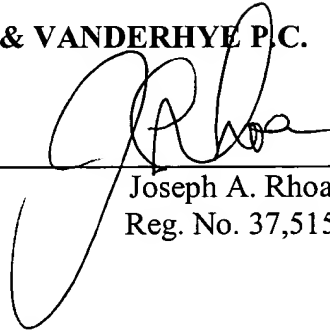
Appl. No. 09/898,082

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Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____

A handwritten signature in black ink, appearing to read 'J. Rhoa', is written over a horizontal line. The signature is stylized with a large, looping initial 'J'.

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